Full Depth Reclamation
Project Issues

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ARRA  FDR & Soil Stabilization
Committee Chairman
Presentation Outline

• Project Evaluation
• Utilities
• Drainage
• Subgrade
• Shoulders
• Inspection
• Deficiency Repair
• Questions
Pre Project Evaluation

- Drainage
- Shoulder Support
- Profile & Cross Slope Correction
- In Situ Materials
- Utility Conflicts

Existing Pavement Thickness & Type
(Surface Treatment, HPM, Sand Bituminous, Etc.)

Existing Base Thickness & Type
(Sandclay, Limestone, Crushed Granite, Etc.)

Existing Subgrade Soils
Atterberg Limits
Utility Conflicts

- Manholes
- Gas Lines
- Water Lines
- Power Lines
- Overheads
Utility Locates
Utilities

- Excessive Down Time
- Rework
- Public Inconvenience
- Repair Costs
- Responsibility
Subgrade
Subgrade

Plastic Subgrade
Volume Change
Moisture Fluctuations
Subgrade

Compaction Deflection
Vertical to Lateral
Subgrade

- Plastic Subgrade
- Unstable Subgrade
  - Moisture
  - Non Cohesive Material
Shoulders
Shoulders
Inspection

Straitedge
Inspection

Proof Roll
Inspection

Density

Moisture

Proctor
Deficiencies

1. Straightedge
2. Movement
3. Compaction
4. Delamination
5. Pot Holes

“Symptoms Not Causes”
Deficiency Repair

A. Cause
   1. Subgrade Deflection
   2. Weak Shoulder Support
   3. Poor Workmanship
   4. Inherent To The Process

B. Significant
   1. Minor
   2. Major

C. Remove & Replace
D. Add Rock
E. Level or Patch with Asphalt - Concrete
F. Remix
G. Mill
• All Risk Not Transferred To Contractor
• Must Have Realistic Obligations & Expectations
• Overreaching Expectations
  • Official Expectations = Contract Requirements
  • Unofficial Expectations = Implied (Reasonable or Unreasonable)
• Define Project Objective
• Scope of Contract
Questions
Construction Guidelines

Committee
Recommended Construction Guidelines
For
Full Depth Reclamation (FDR)
Using Bituminous Stabilization
FDR101
Last Revised 2/24/2012
3/21/2012

NOTICE
It is not intended or recommended that these guidelines be used verbatim within a specification. Owner Agencies should use these to help establish their particular project specification. Owner agencies should understand that all geographical areas and pavement rehabilitation/renovation projects are unique and the availability of materials and equipment may vary as well. ARRA assumes no liability for utilization of these guidelines by any individual or entity. Contact ARRA for answers to questions and for a list of ARRA member Contractors and Suppliers.

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Committee
Recommended Construction Guidelines
For
Full Depth Reclamation (FDR)
Using Cementitious Stabilization
FDR102
Last Revised 2/24/2012
3/21/2012

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Committee
Recommended Construction Guidelines
For
Full Depth Reclamation (FDR)
Using Lime Stabilization
FDR103
Last Revised 2/24/2012
3/21/2012

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